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ORIGINAL DEPARTMENT.

Communications.

EXTERNAL MENSURATION OF THE HUMAN SUBJECT.

By D. G. BRINTON, M. D.

The science of ethnology, the arts of sculpture and painting, the requirements of the military and naval service, and the business of life insurance are all interested, though with different ends in view, in the careful study of the external form of the living, healthy man. The examiner for insurance searches for the signs of long life, the military surgeon asks for the indications which guarantee great physical endurance for a limited term of years, the artist inquires the proportions which form the highest type of the beautiful, while the ethnologist studies the relations of parts to determine the kinship of races. The objects of all could be more certainly accomplished if a uniform system of measurement were adapted, so far as these objects lie together. A provisional scheme of the kind I submit here, trusting that those who use it will make known its deficiencies, as they appear in use.

The table* of measurements adopted by Drs. VON SCHERZER and SCHWARZ on the expedition of the Novara is the most complete ever proposed. But it is too tedious. One must make *seventy-eight* different measurements, which practically one would never do. Moreover, it calls for the use of the dynamometer of REGNIER to ascertain the pressing power and the lifting power (*force manuelle, force renale*), useful items, but not generally convenient to determine.

The scheme here presented requires the use of no other instruments than the measuring rod and tape. The latter should be of flexible steel, graduated to tenths of inches. The callipers,

the dynamometer, and the tailor's yard (for measuring from the perineum to the ground,) are convenient, but not essential to a general examination of the kind.

The French metrical scales would undoubtedly be the best to adopt, but it is not easy to procure them in many parts of the country, and most persons are not familiar with them.

TABLE.

General Facts.

1. Name.
2. Sex.
3. Residence.
4. Age.
5. Color.
6. Occupation.
7. Native country.
8. Of what ancestry.
9. Married or single.
10. Number of children.

General Observations.

1. Figure (slender, robust; erect, stooping).
2. Expression (describe particularly the prominence of any facial muscles, and the prevailing cast of the features in repose. For further information see Charles Darwin's "Queries about Expression" in the *Annual Rep. of the Smithsonian Institution*, 1867, p. 324).
3. Hair (color, quantity).
4. Eyes (color, prominence, arcus senilis; power of sight judged by the type in which this is printed—bourgeois. Persons with good eyes can read it readily at four and a half and five feet).
5. Nose (shape. I am aware of no reliable standard by which to measure the olfactory sensibility, nor that of taste).
6. Ear (shape. The most convenient test of the auditory power is the watch. With one ear closed its ticking can usually be heard by the other at a distance of 28 inches).
7. Tactile sense (measured on the bulb of the index finger of the right hand by the æsthesiometer, or by taking the nearest distance at which the two points of the limbs of a drawing compass can be distinguished).
8. Teeth (condition, gingival line).

* Dr. E. H. DAVIS, of N. Y., has re-published this table in the *Annual Rep. of the Smithsonian Institution* for 1869, p. 371.

9. Pulse (character, frequency standing and sitting by the minute).

10. Respirations (number in a minute).

Measurements.

1. Weight.

2. Height.

3. Circumference of the head horizontally, immediately above the superciliary ridges.

4. Circumference of the neck on a level with the pomum Adami.

5. Circumference of the chest on a line with the mammæ at the close of a forced expiration.

6. The same when the lungs are fully distended.

7. Circumference immediately below the cristæ ilii.

8. Length of arm from acromion to external condyle of humerus.

9. Length of forearm from external condyle of humerus to extremity of radius.

10. Length of hand to extremity of middle finger.

11. Length of leg from the perineum to the sole of the foot.

12. Length of the foot.

13. Greatest circumferences of thigh, leg, arm and forearm.

This examination will yield abundant information on the nervous, circulatory, respiratory, and secretory systems for the examiner for military service or insurance. But even in their fields the value of the measurements proposed will be found of essential service. Certain proportions of the human body are found to correspond to the greatest vitality, and certain ones to the greatest physical beauty. With these the surgeon should make himself acquainted.

Artists have devoted a great deal of attention to ascertaining exactly those outlines of the human figure which satisfy the highest conceptions of the beautiful. The general rules of drawing, the canons of taste as they are called, are doubtless familiar to many readers, but others will be glad to have them repeated in this connection.

The unit of this scale is the *length of the nose measured vertically along its ala*. Representing this unit by the symbol x the artistic rules are:

$4x$ = the length of the head measured from the vertex to a line horizontal with the point of the chin.

$8x$ = the distance from the vertex to the level of the axillæ.

$16x$ = from the vertex to the level of the perineum.

$31x$ = from the vertex to the sole of the foot or the *total height*.

$8x$ = the breadth across the shoulders.

$6x$ = the length of the arm from the acromion process to the humero-ulnar articulation.

$5x$ = the length of the forearm to the wrist joint.

$3x$ = the length of the hand.

When the arms are fully extended the distance from the extremity of the middle finger of one hand to that of the other should exactly equal the height.

When the arms hang by the side the joint of the wrist should be on a line with the perineum.

The above proportions, which are essentially those deduced by JEAN COUSIN, in 1685, from the measurement of ancient statues, and which have been sanctioned by some of the best anatomists of our day,* apply most closely to figures about five feet ten inches to six feet in height. In shorter persons the total height is not eight but about seven and a half times the length of the head. This is the case with those celebrated antiques, the Antinous, the Farnese Hercules, the Laocoon, etc. Moreover as the height depends rather on the distance below than above the perineum, this is a frequent source of discrepancies.

Again, it will be found by observation that this scale diverges considerably from nature in the case of children.† Their heads are larger in proportion and their members longer than in adults. I refer especially to children from eight to fourteen years of age.

A more scientific scale is that of the learned Dr. C. G. CARUS, familiar to us all from "CARUS' curve" in the pelvis. This *spirituel* anatomist takes for what he calls his "organic model" the true vertebral column, from the atlas to the last lumbar vertebra. One-third of this is his unit. Representing this unit by the symbol x , once more we have for the perfect form.

$1x$ = from vertex to a line drawn on a level with the commissures of the mouth.

$1x$ = length of sternum.

$1x$ = from inferior extremity of sternum to umbilicus.

$3x$ = from superior extremity of sternum to the perineum.

$1x$ = from superior extremity of sternum to the acromion.

* See Prof. J. FAU's excellent work, *The Anatomy of the External Forms of Man*, edited by Robert Knox.

† The work of Dr. SCHADOW, entitled "Polyklet," published about 1836, gives the proper proportions for the different ages.

$1\frac{1}{2}x$ = length of arm.

$1\frac{1}{2}x$ = length of forearm.

$1x$ = length of hand.

$1\frac{1}{2}x$ = length of foot.

And many other proportions which it is unnecessary to give.*

Taking either of these, since they really differ very little, as the artist's ideal, some of the interesting points for us to decide are, which race of men, which sex, which age, and which class in the community most nearly approach it? Is it also the form for longest life and greatest strength?

This latter is an eminently practical question. It has by some been already answered, and in the negative. "The graceful shape and form of perfect symmetry," says Dr. JACKSON, as quoted and endorsed by Dr. ROBERTS BARTHOLOW,† "are seldom connected with power, activity, and that inexhaustible fund of endurance which supports toils and fatigues with constancy and firmness."

This verdict will bear to be re-examined in the light of more extensive statistical evidence. It may arise from an impression that the ancient athlete, who may be supposed to have been the type of power and activity, was a brawny, thick-set, heavy-boned bruiser. But such was by no means the case. It is disproved by a study of the antique. Moreover, the measurements of Dr. ULMER on the human subject show that the real relation of parts on which the capacity for physical labor depends, is that proportion which the circumference of the chest on a line with the mamme (the pulmonary or so-called vital capacity) bears to the height and the weight.‡

It was a familiar fact in our late war, that neither the very tall nor the very short men stood the fatigues of field service well. And it is not a common thing to see either extreme in stature reach a very old age. The general physical type which promises the longest life has been the topic of anxious study by medical officers of life insurance companies, and the articles written upon it about a year since, by Dr. JOHN H. GRISCOM and Dr. J. V. C. SMITH, of New York, deserve honorable mention for their accuracy. Years of observation and the analysis of

thousands of examinations can, however, alone demonstrate which morphological proportions promise most certainly that boon of *long life*, which we all desire so earnestly, and yet so few of us earnestly strive to attain.

As to the light which such a study could throw upon the psychical peculiarities of man, and the symbolism of his shape and each of its parts, all who are familiar with the remarkable production of Dr. CARUS which I have referred to above, will agree with me, that it presents one of the most alluring fields of research in the whole realm of knowledge. It is physiognomy applied to the whole body; it is the glass through which we see not darkly the imprint of the soul of man on its house of flesh; it is palmistry and soothsaying, no longer the offspring of superstition and deceit, but regenerated and adopted by science.

The value to the anthropologist of these measurements is now well known, as the proportions of the external forms of man are found to be not less instructive, and in many points more permanent and more decisive, in an ethnological point of view, than those of the bony skeleton. The more important, therefore, is it, that some uniform, facile, yet thorough system of mensuration be agreed upon.

These interesting questions which I have hinted, and many others which will occur to the thoughtful physician, could be solved, in whole or in part, by the extensive adoption of the system of measurements I have above proposed, or one like it, among military, naval, and insurance officers, ethnologists, and travellers, and by a reduction and tabulation of the statistics thus obtained. The latter would properly come within the province of some national or endowed institution, but so long as there is none such, the editors of the MEDICAL AND SURGICAL REPORTER will willingly open their columns to the discussion of the best means to preserve and make them generally useful, and to fix upon a uniform system of observations and reductions.

The quarters to which we could most confidently look for efficient action in the matter would be either the officers of the life insurance companies, the American Medical Association, or the Smithsonian Institution.

* *Symbolik der Menschlichen Gestalt*, p. 55 etc, Leipzig, 1853.

† *The Formation, Discipline, and Economy of Armies*, p. 22 in BARTHOLOW'S *Manual for Enlisting and Discharging Soldiers*.

‡ I quote Dr. ULMER at second hand from Dr. FELIGMAN'S valuable article, "Die Menschenrassen," in the last number of PERTHES' *Geographisches Jahrbuch*, not being able to find his own statements.

— The annual course of private instruction at the Burlington, Vermont Medical College has commenced, with a large class of students in attendance.

Medical Societies.

PROCEEDINGS OF THE MEDICAL SOCIETY OF HARFORD CO., MD.

The regular quarterly meeting of this society was held in Bel Air on Tuesday, November 10th. Dr. THOMAS C. HOPKINS, the president occupied the chair.

The Committee on the memorial to be addressed to the Legislature of the State, asking for a "Charity Fund," to aid physicians in their labors among the poor, consisting of Drs. LEA, MAGRAW, and FORWOOD; with the concurrence of Dr. LEE, Dr. MAGRAW not being present. The memorial reads as follows:

"To the Honorable Legislature of Maryland.

"We, the undersigned practitioners of medicine of Harford county, respectfully pray your honorable body for the enactment of a law authorizing the County Commissioners of this County to levy annually a tax to provide a fund, which may be known as the 'Charity Fund,' to be set apart for the payment of the regular physicians of the County such a per centage as the Legislature may deem proper, for the professional services we render the poor,—to those who are unable to remunerate the physician. We leave with you the arrangement of such details as may be necessary to put the law into practical operation; only suggesting that all accounts so presented should be accompanied by the oath of the claimant, as proof of their correctness; and should not exceed in amount the rates usually recognized by the majority of the physicians of the County in their ordinary practice. Much must be left discretionary with the commissioners, who, in most cases, may be personally cognizant of the facts, and thus qualified to render equitable decisions.

"We do not consider that in making this application we are asking for anything that it is not clearly our right to claim. It is well known that the medical profession, as a body, are harder worked, mentally and physically, for the pay they receive, than any other branch of business. Their education is expensive; they are exposed to the vicissitudes of the weather in the night as well as in the day; and of necessity pass a large part of their time in the atmosphere of malignant diseases; but notwithstanding these hardships and the slender pay, there are but few physicians in active practice who do not annually dispense more charity, in the form of professional services, which constitutes their "stock in trade,"

than do nine-tenths of other members of the community who are more abundantly provided with this world's goods.

"A vile outlaw, who commits a gross and flagrant outrage, is furnished at the expense of the county with legal counsel to defend him from deserved punishment, while an honest poor man, who may be stricken with disease, has no provision made for his relief; the physician must contribute for his own means, or he is left to die.

"The aid we ask from you is for the benefit of the afflicted poor,—we do not expect to receive the one-half of our usual fees, but only sufficient to assist, sustain, and encourage us in our works of charity.

"All of which is respectfully submitted."

Every member present signed the petition, and the Committee was instructed to lay it before every physician in the county, prior to the next session of the Legislature.

The Binder.

The subject which had been previously announced for discussion at this meeting was the use of the binder as an application to parturient women.

Dr. FORWOOD said that he was sorry to observe the absence of Dr. J. SAPPINGTON, of Darlington, as he was probably the leading advocate in our Society of the abandonment of the bandage; and as he (Dr. S.) had practised this disuse for several years, the explanation of his theory, and the history of the results of his practice were particularly desirable in the present discussion.

Dr. FORWOOD remarked that he had always advised the application of the bandage in such cases, in accordance with a time-honored custom, but was by no means satisfied of its necessity, or utility, in the majority of cases. In cases of hemorrhage, however, or where there was an indisposition to uterine contraction, the binder certainly afforded us valuable assistance; and the obstetrician would be highly censurable for the omission of its use under such circumstances. He had recently read in the proceedings of the State Medical Society of Pa., a report from the Montgomery County Medical Society, in which it was remarked that "the abandonment of the bandage in parturient women rapidly gains favor with the profession in our society." This brief sentence comprises all that is said in the report quoted, and leaves us as much "in the dark" as before.

Dr. Forwood had also noticed one or two articles on the abandonment of the bandage, within the last year or two, in the MEDICAL AND SURGICAL REPORTER, but believed that the literature on the subject was extremely limited.

He then read from MEIGS' *Obstetrics*, where the author forcibly impresses upon the attention of the student the fixed rule that the application of the bandage in every case of midwifery, is the imperative duty of the obstetrician.

Dr. FORWOOD did not recommend the abandonment of the binder, but thought that it might be omitted in many cases without disadvantage to the patient; indeed, as generally applied—above the pelvis—it certainly did more harm than good, frequently inducing that wretched malady, which afflicts so many American women, prolapsus uteri.

Dr. THOMAS C. HOPKINS said that in his practice he had been indifferent as to the use of the binder. He generally left it to the "old women" to apply or dispense with its use at their option; he not deeming it a matter of sufficient moment to require specific directions. He added that his preceptor, Dr. ALLEN, of Cecil Co., had disapproved of the indiscriminate use of the bandage, that he had generally followed his precept. He nevertheless agreed with Dr. Forwood that there were cases in which the bandage was useful; but, as usually applied, he regarded it as a bandage to the thorax instead of the uterus.

Dr. JOHN EVANS said that he always directed the bandage to be applied. He considered its use in parturient women quite as necessary as in tapping for abdominal dropsy. He believed that the blood-vessels required support. He referred to cases of fractured limbs where the patients would sometimes faint upon the removal of the bandages, caused, in his opinion, by the loss of the accustomed pressure from the blood-vessels.

Dr. SILVER inquired if any of the teachers in the medical colleges, or other leading authority recommended the disuse of the bandage.

Dr. EVANS replied that so far as his information upon the subject extended, all teachers and writers of recognized authority, advised its use.

Dr. SILVER added that he considered the application of the bandage necessary in many cases, and useless in others; but, as a precautionary measure, he advised it in all cases. He thought its use more particularly called for in country practice than in the city; as country patients are often so far distant as to incur the risk of dying from hæmorrhage before they could be reached by the medical attendant.

Dr. HAYS spoke of cases in which he was satisfied that prolapsus of the uterus had been produced by the mal-application of the bandage; and mentioned the case of a patient who had suffered with prolapsus after each of several previous confinements, in which she had worn a bandage,

who was completely cured after a subsequent delivery by omitting its use, under his direction, and remaining in bed a week longer than is usual in such cases. He used the bandage where hæmorrhage was present, and in obstinate relaxation of the uterus, with the view to producing contraction, but did not advise it as a general rule.

Dr. LEE thought it probable that the binder might be dispensed with in many cases, provided the patient could be kept perfectly still, and on the back, for a considerable time; but he believed that a parturient woman, under certain circumstances, might instantly die, without hæmorrhage, by suddenly turning from the back to the side, for want of the support afforded by the bandage.

Dr. LEE said that death from uterine hæmorrhage was a much more rare occurrence than medical teachers and writers have induced us to believe. It is held up to the student at college as one of the greatest "bug-bears" to be encountered in the practice of obstetrics; and all young practitioners when called to their first cases of midwifery, go forth with the terrible apprehension that they are doomed to witness a death from *hæmorrhagus uteri*! We soon begin to think that our cases are exceptional—they do not die—and after a few years experience we are forced to the conclusion that death from uterine hæmorrhage is an occurrence of extreme rarity.

The bandage, he regarded as necessary as a support to the relaxed abdominal parietes, to the blood-vessels, and through them to the nervous system, as well as the comfort of the patient; and with this view, more than the fear of hæmorrhage, he had been in the habit of ordering its application in all puerperal cases that came under his care.

With reference to Dr. LEE's remark, that a patient might die, without hæmorrhage, if unsupported by a binder, from simply turning upon her side., Dr. FORWOOD said that such a case would certainly be regarded as very extraordinary, and could scarcely be attributed to the want of a bandage.

Dr. FORWOOD added, that we should consider parturition as a natural process, as well in the human female as in the lower animals; and it was surely reasonable to presume that it could be completed in the human species with entire safety, without the interposition of any artificial support. We have examples in the North American Indians, and in the African race, without referring to lower animals. It is a fact well known that the Indian women often bring forth their children while travelling from one point

to another with their tribe; and as soon as delivery is accomplished they arise, place the infant upon their back, and continue their journey *without a binder*. It is also a common occurrence for African females to arise from their beds on the day of delivery, and pursue their usual avocations without detriment to their health.

Dr. Forwood, therefore, in view of these facts, looked upon the employment of the bandage, and the nine or ten days confinement to bed, among the higher classes of the white women of the present day, as the requirement of an artificial condition superinduced by the luxurious living, the immuniment from physical labor, and the more general cultivation of the mental faculties, attendant upon advanced civilization.

As no disposition to further discussion in this channel appeared to be manifested, and as some time was still at the disposal of the Society, Dr. Forwood remarked that, with the approbation of the members, he would like to introduce a cognate subject, with the hope of getting the opinions of those present.

He referred to

Ligation of the Funis.

He said that within a recent period it was being agitated in some quarters, with plausible reason, that the application of a ligature to the umbilical cord of the new-born infant, cannot only be dispensed with without danger, but with positive benefit to the child.

This theory is new to the present generation, but it is now attracting some attention, as before remarked, and it is our duty as searchers after truth to investigate and determine what claims it may have upon our future practice.

Many of the best established doctrines of our profession at the present day, were once looked upon by many of the leading physicians as wild and pernicious theories.

The majority of the medical men to whom I have mentioned the subject have rather abruptly responded that they have practised the ligation of the funis throughout their professional lives, that it is a simple and easy operation, that it satisfies the "old women," and they have never observed any ill effects resulting from it. After this oracular delivery, the interrogated party rarely manifests any disposition to continue the colloquy.

Dr. Forwood read the following passage from the report of the Montgomery County Medical Society, before referred to:

"The division of the umbilical cord without ligation, has been practised by a number of our members, and is by them highly extolled. In all the cases reported, the excision was made while the umbilical arteries were still pulsating with a loss of very little blood, not more than a few drachms, hemorrhage ceasing in a few minutes. In no case did bad effects follow this practice, though one of the members, who was fearful to risk his case without ligature, lost a child by hemorrhage, after securing the cord, as he thought, most perfectly."

This report is unfortunately wanting in all the particulars that would entitle it to weight with the profession. The names of the practitioners, the details of the circumstances attending each case, and especially the *number of cases* subjected to experiment, should be fully given. It is to be hoped that our Montgomery County friends will supply this omission at a future day.

Dr. Forwood then read several lengthy extracts from an elaborate essay *On Ligation of the Funis*, by A. F. A. KING, M. D., of Washington City, published in pamphlet form, 1867.

The author very properly premises by saying, "There is, perhaps, no manifestations in obstetrics, no operation in surgery, and no course of treatment in medicine that has been more universally practised, in all ages and countries, and by all authorities, than ligation of the umbilical cord at child-birth; and every one has believed in the prosperity, utility, and necessity for the operation."

He then refers to the amount of moral courage required by one who would attempt to shake the foundation of such an ancient and universal practice; but trusts to the future for verification of the truth of his theory.

Dr. FINNEY spoke of having seen two cases in which the cord was not tied; and in those cases no unfavorable results followed. He was strongly inclined to the opinion that ligation was unnecessary.

From the remarks made, it appeared that nearly all the members designed testing the practice in all cases where a favorable opportunity was presented; and if found satisfactory, would exert their influence for correcting the errors in the public mind in relation to the subject. Time will be required for this purpose; and in the meantime every professional devotee should regard it as his personal duty to facilitate the inquiry by imparting to his fellow-practitioners his individual experience.

After the transaction of some executive business, the Society adjourned.

EDITORIAL DEPARTMENT.

Periscope.

Climates for the Infirm.

We find this subject considerably agitated in our German exchanges. In our opinion, the first step in the treatment of phthisis should consist in placing the patient under favorable climatic influences. We have visited Florida and the island of Madeira, and consider the latter preferable in some points, because the heat never becomes so high as to produce debility, and there are no malarious diseases prevalent.

Dr. HELFFT, of Berlin, draws the following conclusions in the *Berliner Klinische Wochenschrift*, No. 28, 1868.

1st. Those places are best adapted for the residence of the infirm where the temperature is moderately high, and of slight variableness from hour to hour, day to day, or even in the course of many months. At places where the temperature is lower, the variations between morning and evening, and noon, are much smaller than in the climates of the far south. Places near the sea are less subject to sudden changes than those far inland, as are also those in the north which have the protection of mountains against the cold north and northeast winds. Furthermore, we must consider how long the sun's heat falls upon the surface; if, in consequence of the position of mountains, the sun rises late or sets early, the variations of temperature are generally considerable.

Madeira, Venice, Malaga, and Cairo have a pretty equable temperature. Rio, Nice, and Pau are subject to great variations, often as much as 11—12° R. In Germany, Baden-Baden, Wiesbaden, Meran, and Bozen have an equable temperature, and may be recommended as sojourning places for the winter months. At "curative places," the hours from 10 A. M. to 3 P. M. are called the "medicinal day;" and then the air being well warmed by the sun, the patients are permitted to walk out.

2d. Atmospheric moisture should be moderate. This is beneficial to the respiratory mucous membranes, and moderately moist air is far better than very dry or very wet air. The amount of rain does not influence the mean of the dew point much, but it may act injuriously by preventing out-door exercise for too long a period.

3d. The atmosphere should not be subject to violent agitation, and those places are best which

are protected by mountains from the sharper winds.

4th. Sunny days should be of very frequent occurrence.

5th. There should be agreeable scenery and shady promenades to lure the patient.

6th. Proper amusements and occupations for the mind, according to its culture, should be provided.

7th. Great preference must be given to those places where for months the temperature remains almost unchanged, and patients are, therefore, not compelled to undertake frequent voyages in order to escape inclement seasons.

In this respect the island of Madeira takes precedence of all other "curative places" (*kurort*) which are at a distance. Patients may remain there all the year, and during the summer need only to go the mountains, where proper accommodations are provided.

8th. A change of climate is only to be advised when the disease has not yet made great advances, the powers of the patient have not been too much reduced, a febrile movement has not set in, and when his circumstances are such that he may be able to remain as long as may be found necessary, and enjoy all comforts or advantages which money can procure. When possible, it is well that a beloved relative or friend should accompany the patient.

While we were in Peru, a lay friend strongly recommended, as a residence for consumptives, the village Juja, (pronounced *huka*), situated among the Andes. He related some of those miraculous cures which are usually only met with by the non-medical observer, and stated that the cost of living at Juja is very trifling.

A. A. H.

Kristeller's Method.

Herr HILDEBRANDT referred (*Berliner Klin. Wochenschrift*, No. 27, 1868) to this method of expressing the foetus, at a meeting of the Königsberg Med. Society, April 14th, 1868.

He first resorted to it with great hesitation, and in a case favorable for the trial it succeeded so well as to astonish him. It was in the case of a second pain, in transverse position, head on left ilium, four extremities presenting. An assistant had failed in an attempt to turn by the feet. H. put back both feet, then the arms, caused the head to present, by means of pressure from without, then made one or two strong compressures *a la* KRISTELLER, and saw, during the same, the rapid and happy birth of a living child. Since then he has tried the method in a number of cases, and recommends it.

A Medical Prophecy Fulfilled.

The Philadelphia MEDICAL AND SURGICAL REPORTER, for January 9th, 1864, (Vol. xi. No. 2), page 27, contains the following remarkable communication from Dr. SAM'L W. FRANCIS, of New York, suggesting the invention of a new and improved Introscope, which explains itself. The date and substance of this communication become important at this time, as scientific men abroad are receiving praise in France and England for inventions involving the same principle, but only recently brought before the public, and we feel only too happy to claim the idea as American. Dr. FRANCIS says—1864:

"There is one additional statement which, though what TERENCE would designate as 'homunculus,' I will venture to predict that it may be seconded. It is to the following effect—that ere long so great improvement will be made in the microscope, that, on stripping the body of any person, and by artificially illuminating him internally by electro-magnetism or otherwise, and by looking through the countless multiplied lenses of the improved microscope, the workings of his organs may at once be studied, the complex localities of the nervous system effectually understood, and a practical chart of normal and abnormal differences easily perceived," etc., etc.

By referring to the "REPORTER" of Nov. 9th, 1867, Vol. xvii., No. 19, it will be seen that, incredible as it at first might appear, a Frenchman of much ingenuity has already succeeded in verifying Dr. FRANCIS' prediction.

"M. MILLIAT, of Paris, introduces into the stomach glass tubes of small calibre, containing two platinum wires, connected with the electrodes of a powerful battery—the apparatus of Middledorpf he prefers—and thus kindles an intense light in the cavity. Tumors in the abdominal walls can thus be demonstrated, indurations and ulcerations detected; and indeed to what extent diagnosis may not be facilitated, it were premature to say."

In the *New York Daily Times*, of Nov. 22d, 1868, appears also the additional endorsement of what Dr. FRANCIS foretold nearly four years ago, in the pages of this journal.

"The man who by accident had a gunshot wound so healed as to leave an opening into his abdomen, through which the operations of the stomach and viscera could be observed, was justly regarded by the 'medical faculty' (whoever they may be,) as a valuable help in the study of physiology. But if the English Dr. RICHARDSON succeeds in his new lamp, constructed to throw light through human tissues and make visible the interior, he will have conferred a still greater, because more generally attainable and useful, boon upon science. PRIESTLY's work on 'Electricity' noticed the fact that the animal tissue

(of the finger) seemed luminous when electricity was passed through it. From this hint, and other similar phenomena of the tissues when under the influence of bodies on the ethyl and methyl series, Dr. RICHARDSON has produced a light which penetrates the delicate tissues of childhood. We hope the rest may follow."

Lateral Hermaphroditism.

In the *Liverpool Medical and Surgical Reports*, October, 1867, (quoted by the *Brit. Medical Journal*.) Dr. RAWDON describes a case of true lateral hermaphroditism, in which a tolerably developed vagina and uterus were present. In the left broad ligament a Fallopian tube, a round ligament, and apparently a parovarium were found, but no trace of either testicle or ovary; in the right broad ligament a Fallopian tube and a distinct testicle, with an epididymis, and a vas deferens, which was traceable on the side of the uterus as far as the cervix, the junction between the testicle and the epididymis being very feebly, if at all developed. The conformation of the pelvic cavity was between the male and female types. It was alleged by the person that a partial occurrence of the menstrual secretion took place regularly. The case is of interest in its bearings on the development of the genital apparatus, and, from the co-existence of a Fallopian tube and a vas deferens on the same side of the body, it supports the view that these ducts are developed from distinct embryonic structures, viz., from the Müllerian duct and the excretory duct of the Wolffian body.

Pertussis.

OPPOLZER says (*Wiener Med. Presse*, 36, 1868), narcotics and astringents appear to reduce the duration of the disease about one-half.

Belladonna is probably the best, but simply because of its narcotic action. Tannin acts well in the third stage, or that of expectoration. In the case of children one or two years old, he began with pulv. rad. belladonna, gr. 1-12 morning and night, gradually increasing up to gr. $\frac{1}{2}$, or gr. $\frac{1}{4}$, taking the pupil as a guide. Emetics are only given when the bronchial tubes are filled with masses of mucus. To those who were arrived at years of discretion, he also gave sodæ bicarb. \mathfrak{zss} , in a tumbler of sweetened water, a mouthful to be swallowed just before an anticipated paroxysm, for diluting the phlegm. The following also acts well the same part.

R. Coccionellæ,	gr. v.—viij.
Potassæ carbonatis,	gr. x.
Aquæ f. dest.,	f \mathfrak{z} j. M.

Sig. Give a tablespoonful every two hours.

Change of air is good, even if patient can be

removed but a few miles. If this is not procurable, keep the patient in a room with an equable temperature. For the resulting anemia use good diet. Dr. LINK's extract of meat is good. Medicine may also be required.

In conclusion, it may be stated that, of late, many French physicians recommend the exhalations from lime which has been used in purifying burning gas, or, better still, gazéol. OPFOLZER has had no experience with these remedies.

A Royal Introductory.

DON LUIZ I., of Portugal, opened the annual course of the Medico Chirurgical School at Lisbon on the 5th of October.

He concluded an address in which he declared his love for science, as follows:

"As regards the students of this school, a sufficient stimulant to their energies may be found in the elevated social position of the greater portion of their predecessors; the example of their teachers, who regard a reputation for learning as the greatest fame they can enjoy; and, finally, the spirit of emulation which must be raised in every elevated soul by the distribution of the prizes, to-day, for distinguished talent, and for the transmission of the splendor of the school."
—(*Wiener Med. Presse*, 45, 1868.)

Position in Sleeping.

It is an opinion among many that the position of our bodies at night with reference to the cardinal points has some influence on the health. The following corroborative observations are by HENRY KENNEDY, A.B., M.B., in the *Dublin Quarterly Journal of Medical Science*, in an essay on the Acute Affections of Children.

"The last point in connection with my subject which I would notice here is the position of the patient. I know not whether I am addressing any one who is familiar with this plan, but it is one which I have for several years past put in force, and often with very marked results. I had read in some book that sleep was often prevented from the position of the person not being in the right direction, and that to ensure the soundest sleep the head should lie to the north; and strange as this idea may at first sight appear, it has more in it than might be supposed. There are known to be great electrical currents always coursing in one direction around the globe; and there can be little doubt, in my own mind there is none, that our nervous systems are in some mysterious way connected with this universal agent, as it may be called, electricity. I am probably addressing some who are quite conscious of peculiar feelings on the approach of a thunder storm. I have known many such. At

any rate, whatever the explanation be, when I read what I have stated the idea at once struck me that it might be turned to account in the treatment of disease, and very shortly afterwards the following case occurred:—A young lady, then about eleven years old, was seized with measles in a severe form. There was very high fever, restlessness, and raving, with a total absence of sleep, and this state went on longer than the natural course of the disorder seemed to account for. In fact, the fever did not come down with the decline of the eruption. Anodynes were now given, but without any marked benefit. I then thought of what I had read, and directed that the patient's position should be altered. She had been lying east and west, and she was now put north and south, and with a very striking result, as on the very first night she got sleep; and though the fever, evidently like the secondary fever of small pox, ran on some days longer, she did not suffer again from loss of rest. I must say, at the time this case occurred, I was quite unprepared for the result, and set it down more to chance than anything else. The fact, however, was enough in itself to draw my attention to the subject, and since then I have often put the same plan in force, and now cannot doubt that it is very frequently successful—I say frequently, for all are not equally susceptible. Nor, indeed, can this be expected. It applies, too, likewise to adults; and my friend, Dr. GRIMSHAW, has seen it put in force in some cases of fever in the Cork Street Hospital, and with marked benefit. I may remark, however, that it is not so striking in its effects on the poorer as amongst the richer classes of society; and this seems to me just what might be expected, for it cannot be doubted that the nervous system in the middle and upper ranks is always in a much more sensitive state than with their poorer brethren. Hence it is that in fever hospitals sleeplessness is rare when compared with what occurs amongst the higher classes. It is worth noting that even in healthy persons sleep will often be absent, or of a broken kind from the cause of which I am speaking. It is very common to hear people saying they can never sleep in a strange bed. Now, though many causes may conspire to this, I cannot doubt that amongst these ought to be placed the one to which your attention is being drawn. One of the latest cases in which the means now brought forward were used was that of a little girl I saw with my friend, Dr. DENHAM, within the last month. Dr. WILSON, of Coleraine Street, also saw the case. It was one of severe gastric fever, with

the brain very much engaged, and, for a few days, the symptoms were very like those which so often usher in hydrocephalus. In this case two of the means here spoken of were adopted. An anodyne poultice was applied to the abdomen, and the child's position was altered, and with a result which was very striking, for by the second day all danger had passed away, and the very first night of its adoption the child slept. I mention this case because it was seen by others."

Cases Successfully Treated with Pepsine.

Since the introduction of *Pepsine* into therapeutics by Dr. CORVISART and Mons. BOUDAULT, the chemist, this remedy has been gaining steadily in the estimation of the medical profession. We have transcribed a few interesting cases treated with it from the work of Dr. CORVISART on "Dyspepsia and Consumption," showing its peculiar adaptability to many disorders of the digestive functions.

Case 1. The first was communicated by Dr. A. LONGET, member of the Academy of medicine.

Typhoid Fever.—On the twenty-fourth day, the patient cannot yet support any food, even the lightest. The administration of BOUDAULT's pepsine in powders produces immediately easy digestions. On suspending the remedy as a test, the old symptoms reappear with violent pain in the stomach and diarrhoea. The treatment is continued for ten days, when the patient digests without any help.—Miss *** 15 years, pupil of the "Maison impériale d'Ecouen," on the 24th day of a serious typhoid affection although convalescent, was in an alarming state of debility, because she could not support any food, not even the lightest. I ordered her BOUDAULT's pepsine in powders. The first half dose which was administered in tapioca broth acted so well, that a second in the same conditions was given to the patient three hours after the first, and was digested without fatigue. The second day the same result with three broths and a raw egg. The third day the dose was intentionally omitted from the first broth in the morning, and this caused violent pains in the stomach and intestines and a watery stool. The two others however, which were administered the same day and contained each half a dose of pepsine, resulted in a complete and easy digestion. The fourth day of the administration of pepsine the patient ate soups and chicken. After this a more and more substantial food could be given, but every time the dose was suppressed for a meal, the digestion was more or less painful. This state lasted 10

days, when the digestion became normal. During this time there existed generally a decided constipation, which however gave way under the simplest remedies.

Case II. is reported by Dr. BERTHELOT, of Paris.

Miss B., complains of a heaviness in the stomach and a very difficult digestion, especially of the evening meal. This state which dated back a whole year, continuing notwithstanding a varied medication, I prescribed for her one dose of pepsine wine BOUDAULT at each evening meal. From this time on she digests much better; as soon as she stops these doses, and I have tried it many times, she digests with more difficulty and the epigastric pains reappear immediately. The taking of pepsine always renders the digestion painless and easy.

Case III. is communicated by Dr. CAHAGNET, of Napoléon-Vendée.

After a habitual dyspepsia of seven years, with debilitated digestion and loss of strength, disease which resists tonics, purgatives, narcotics, vegetable charcoal and seltzer, and Vichy waters, a serious endocarditis sets in. After curing this, the dyspepsia increases; notwithstanding bitters, Vichy waters, etc., no nourishment can be supported; the patient becomes weaker and vomits everything, even soups and beef tea. The syrup of pepsine of BOUDAULT is prescribed for eight days; the digestion is good from the first day and the alimentation is rendered more copious and more substantial. Strength returns sufficiently to allow walks in the garden.

Case IV. From Dr. PARISSE, professor at the "Ecole de médecine" of Lille.

Obstinate vomiting during pregnancy.—This case was a young woman of a very weak constitution, of irregular habit and subjected for a long time to the use of ferruginous preparations, when she became pregnant for the first time. At first I only suspected her state of pregnancy. The stomach troubles become so disquieting, that I prescribed BOUDAULT's pepsine in powders. She used these for twelve or fifteen days. From the very first day the digestion was better, her condition continued to ameliorate, and soon she could digest without this remedy. It is important to state that pregnancy had arrived at the fourth month; perhaps the change in the digestion might be attributed to the modifications which the uterus undergoes at this time. Still I do not doubt that the remedy has been really useful.

Priority in Ligature of the Femoral Artery.

In a communication to the *British Medical Journal* in June last, Mr. C. F. MAUNDER, F. R. C. S., thus gracefully yields a palm to American surgery. All honor to Mr. MAUNDER!

"Twelve months ago I proposed the application of a ligature to the superficial femoral artery, to check acute inflammation of the limb following wound of the knee-joint. The operation was performed with immediate and continuous benefit, and the patient recovered. I need scarcely say that at that time I believed the suggestion to be original, and have only now been undeceived by the perusal of a short paper upon the subject in the *American Journal of Medical Science* of April, 1868. It there appears that the femoral artery was ligatured, *first*, for wound of the knee-joint by H. U. ONDERDONK, M. D., in the year 1813, and occasionally since that date also in America. It is a curious fact that no surgeon has ever informed me that my suggestion was not original; and it is still more strange that the author of the *Annus Medicus*, 1867, published in the *Lancet*, should have spoken of the of the operation proposed by me 'as bold and novel' (italics are mine), and withal successful, surgical proceedings of the year, we may mention the ligature of the femoral artery in a case of acute traumatic inflammation of the knee-joint on the principle of diminishing the arterial supply of an inflamed part—a principle suggested by Mr. MAUNDER, and now under much discussion.' Still, with the evidence before me, it is clear that I cannot claim priority in the suggestion; and I hasten, by thus addressing you, to give credit to whom credit is due."

Oleum Terebinthine in Erysipelas Traumatica.

Professor Dr. ALBERT LÜCKE, of Berne, (*Berliner Klin. Wochenschrift*, No. 45, 1868,) has applied the above-mentioned remedy with success. We will only cite one of several cases reported.

Christian Oppliger was under treatment for complicated fracture of the leg, and May 12th, 1868, a small sequestrum was extracted. Evening, May 13th, emesis, headache, bodily temperature 40° C. A very lively erysipelatous redness about the wound, of the size of several hands, lymphatic glands of groin swollen and painful. Application of ol. terebinth.

Morning of the 19th. Temperature 38°6; erysipelas somewhat paler. Evening, temperature 38.

On the 15th, erysipelas gone, temperature normal.

Our author did not observe local irritation fol-

low the application of the oil; the patient only felt a slight, temporary burning sensation.

The method was tried with entire success in about nine cases of traumatic erysipelas.

Vital Force.

The notion that a separate kind of force exists, called vital force, which presides over the production of organic substances, seems to be losing ground. Many chemists assert that life would not be necessary to produce any organic substances; and that they will all be ultimately produced under physical conditions in the chemical laboratory. We gather, from a paper read before the Royal institution of Great Britain, a list of the following substances, generally of organic production, which have lately been synthetically produced from their inorganic elements. Among these are urea, oxalic acid, formic acid, acetic acid, olefiant gas, alcohol, succinic and tartaric acids, ammonia, prussic acid, benzol, the aniline or coal-tar dyes, and, what is one of the latest and strangest discoveries, the odoriferous principle of new hay and the tonquin bean. Many of these substances are quite complex, and they include substances that are most distinctly organic. They are all crystallizable. But thus far there has been no corresponding success in artificially preparing organic tissues. These seem to be in a closer relation with life. Their development must be obtained, if obtained at all, from matter in what Professor GRAHAM calls the "colloid" or gelatinous state.

Microscopic Fungi as the Cause of Contagion.

Dr. LISSAUER, of Dantzic, has made a number of experiments with penicillium, and concludes that fungus is not a cause of contagion, but is an accidental presence.

He first found it in vaccine lymph; then he procured some from the surface of a cut lemon, and with this he attempted to produce vaccina in a calf, but without effect.

In contradiction to HALLIER, he says: "I believe I have shown that we cannot advance pathology by cultivating microscopic fungi from the products of disease; and that, moreover, the detected and censured fungus cannot be regarded as the contagium until we have succeeded in producing the disease by art."—(*Berl. Kl. Wochenschrift*, No. 30, 1868.)

— An invalid disturbed all the inmates of his boarding-house recently by imitating a dog. When asked why he did so, he said he had been ordered by his physician to take port wine and bark.

Reviews and Book Notices.

NOTES ON BOOKS.

Two more juvenile periodicals are on our table, both new. *The Young Folks' News*, published by Mr. A. MARTIEN, in this city—insuring its success from the start—is an illustrated weekly paper for young people. We have received two numbers, and they give fine promise for the future. One thing our readers may be assured of—the paper will contain nothing in the least objectionable, a vital point in literature for the young. We would suggest that a column be given to a simple, condensed summary of the essential news of the day—not crowded into a small space, and thereby rendered unreadable and useless, as is too often done, but properly displayed. Rev. HENRY REEVES edits the paper, which is furnished at the low price of \$1.00 per annum.

Onward—Capt. MAYNE REID's new magazine, announced recently, is now issued by CARLTON, New York. It is a handsome monthly, of nearly one hundred pages, at \$3.50 per annum. The number before us is replete with articles of interest and instruction. In a very well conceived introductory letter, Capt. REID says that *Onward* "is not meant to be a mere collect of idle romances, but rather intended as a teacher." Let it be so—and let not the editors of these periodicals for youth forget that a *very serious responsibility rests upon them* to produce a literature that shall have a lasting influence for good, and not for evil. They will make impressions that will last through the ages of eternity. This is sacred clay: in handling it have a care that your persons are clean, and your vestments holy! The increase of juvenile literature is a marked feature of the times, and we cannot forbear these words of caution.

Among the recent medical works from the French press, one is by Dr. A. FAUVEL, the French delegate to the International Conference which met at Constantinople. It is entitled "Analysis of the Proceedings of the International Sanitary Conference at Constantinople." "Le Cholera, étiologie et prophylaxie; origine, endémicité, transmissibilité," and discourses of the propagation, hygienic measures, quarantine measures, and general measures to take in the East to prevent a new invasion of the cholera in Europe.

Another is Dr. ST. MARTIN DE LAPAGNE's

"Médecine; Refutation of Dr. RICORD's Doctrines," followed by rational principles and treatment.

The Introductory Lecture to the students of the medical school of Harvard University, by Dr. CHARLES E. BUCKINGHAM, Professor of Obstetrics and Medical Jurisprudence; and the Introductory Address in the Miami Medical College of Cincinnati, by Dr. E. B. STEVENS, Professor of Materia Medica and Therapeutics, are both of them well written, and suitable to the occasions.

"Moderate Drinking" is the subject of an essay read before the Pennsylvania State Temperance Convention at its last meeting, by Dr. SUMNER STEBBINS, of Unionville, Pa. It is published in the *National Temperance Advocate*, and as exhibiting the evil effects, in a physiological point of view, of the practice he reprobates, is well worthy of perusal.

DR. HENRY GIBBONS, of San Francisco, editor of the *Pacific Medical and Surgical Journal*, is the author of a prize essay entitled "Tobacco and its Effects," showing that the use of the article is a physical, mental, moral, and social evil. The Board of Managers of the Tract Society of the Methodist Episcopal Church offered for the best essay on this subject a prize of \$250; there were fifty competitors, and the Committee unanimously awarded the prize to Dr. GIBBONS, who has stated the arguments against tobacco clearly, guardedly, and conclusively. It is published at the Methodist Book Room, in this city.

In a review of Dr. METZ's "Anatomy and Histology of the Eye," in a St. Louis medical periodical, the reviewer dwells severely on some typographical errors in the Latin terms employed in the book, and says the author borrowed too literally from "PITZ' LEHRBUCH." He repeats "PITZ" several times, always with the same orthography. The reviewer's acquaintance with his subject may be judged from the fact that no such person as "PITZ" is known in medical literature. He probably refers to PILZ, but was not familiar with the correct orthography of the name.

Typhus caused by Cast Iron Stoves.

E. DEBASINE mentions several cases of typhus, whose origin he attributes to the use of coal in cast iron stoves. He warns against their use, particularly with coal; and says that with this there is always danger of coal poisoning, and of typhus diseases.

Medical and Surgical Reporter.

PHILADELPHIA, JANUARY 2, 1869.

S. W. BUTLER, M. D., & D. G. BRINTON, M. D., Editors.

Medical Society and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc. etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

To insure publication, articles must be practical, brief as possible to do justice to the subject, and carefully prepared, so as to require little revision.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

LATE CASES OF ALLEGED INSANITY.

The evidence in Meade's case has now been before the public for some time. It is another of those instances wherein the sympathy of the public is asked for a husband and a father imprisoned on pretence of insanity by his wife and children—another case which furnished penny-aliners for the dailies and weeklies a text whereon to talk of *lettres de cachet*, private madhouses, and mercenary physicians.

Here was a man broken down by arduous service, soured and embittered by disappointment and indulgence in violent passion, confessedly given to "fits of ungovernable fury" for trifling causes, carrying about three or four loaded revolvers, suspicious that his daughter, who had tenderly watched over him during a trying illness, meant to poison him, threatening the life of his family, and hanging about the dens of New York to enlist "roughs" in order to murder his prospective son-in-law; finally pronounced by Dr. BROWN-SÉQUARD as suffering from an organic disease of the brain: here was such a man turned loose on the public, on his family and his connections, because the judge, while seeing proof of frenzy, of dangerous, wild, uncontrolled, permanent passion, yet was not clear in his mind that this was insanity. He had a definition of insanity of his own, this judge had, so he tells us, but, "though clear to him, he could not express it"!!

Another case of a similar nature was not long since before the courts in this city. This too was a representative case. The evidence showed, beyond the reach of a doubt, that the man entertained delusions; that he believed that he had been poisoned; that his eldest son was a changeling; that his wife, whom the slightest breath of

suspicion has never reached, had been unfaithful; that he possessed certain property to which he had not the shadow of a title; that his wife was a negress, etc. With scarcely a dollar at his command, he projected enterprises that would have required an outlay of hundreds of thousands. His character also completely changed, so that the once kind, quiet, affectionate father and husband, became estranged from his family, again and again heaping upon them insult and injury. He became noisy, quarrelsome, carrying about firearms, and threatening to use them. He made a will so absurd that the court, with all its leaning to his side, could not explain it upon any theory of sanity. While under treatment in the Pennsylvania General Hospital for a broken leg, he became so turbulent as to disturb the other patients, and had to be removed to some other part of the house. How could any case of insanity be clearer than this? What single ingredient of the disease was wanting? What criterion or test of insanity, medical or legal, did it fail to meet? If not insanity, what is it?

Look on that picture, and now on this. A man, whom no one ever suspected of insanity, learns that his wife had chosen to commit adultery during his absence from home. He puts a pistol in his pocket, travels a number of miles in perfect coolness, to where he knew the adulterer would be on a certain day, watches his opportunity as his unsuspecting victim enters the room, draws his weapon, takes deliberate aim, and shoots him dead. An enlightened (?) and impartial (!!) jury, sworn to give a true verdict, discover that just at the time of shooting, this murderer was insane!! He is acquitted, and the public clap their hands. Where was Judge SEHRERLAND, with his clear but inexpressible definition of insanity at that time? With his reiterated warning, "The instant you admit the idea of uncontrollable passion, there is an end of justice. The question was not whether the passion was uncontrollable, but whether it was caused by lunacy."

Unless the subject of insanity is to be made a universal door of escape for criminals, and unless the community is to be called upon to chronicle many a disastrous stroke in social life, the definition and the decision of insanity must be left with those who have made it the study of years, and are familiar with it from daily practice.

— The post surgeon at Fort Randall, Dakota, claims to have invented electro music, by which one performer can play a brass band in half a dozen different cities at once.

Notes and Comments.

Loss of Life by Fire in Public Institutions.

A few weeks ago we had the sad details of the loss of the lives of six or eight insane women, by the conflagration of the Central Ohio Lunatic Asylum at Columbus. The cause was a defective flue, through which fire was communicated to the building. Not many months ago something of the same kind occurred at a Poor-house in Western New York, accompanied also by loss of life; and now we are told that quite recently, one woman was suffocated, and two were badly injured by a fire in the south ward of the Lunatic Asylum in Amherstburg, Canada. The building was saved.


There cannot be too great vigilance exercised at this season of the year in our public institutions, especially in Hospitals for the Insane and in Prisons, where it is necessary to keep the inmates under lock and key, so that they have no means of escape in case of fire. The responsibility of the officers of these institutions is very great, and we urge them to see that their watchmen are faithful in the discharge of their duties.

Preservation of Fresh Meats.

As a stimulus to inventors it is announced that the Brazilian and Argentine republics each offer a premium of \$8000 in gold, to the introducer of the best system of preserving fresh meats, in a manner adapted to their export on a large scale. Mr. EDWARD F. DAVIDSON, of New York, Consul of the Argentine Republic, will furnish information on the subject. Proposals will be received till May 2d, 1869.

Liebig's Extract of Meat.

The establishment on the river Uruguay, South America, for the manufacture of Liebig's Extract of Meat, it is stated, has the largest kitchen in the world. The building covers an area of 20,000 square feet, or nearly half an acre. In one hall there are four meat cutters, which can dispose of 200 bullocks each per hour. There are twelve digestors, in which the meat is boiled by steam. They can hold altogether 144,000 pounds of beef. About eighty oxen per hour are actually slaughtered for this immense manufactory of meat extract.

[ Readers of the REPORTER are invited to send us copies of local Newspapers, and similar publications, from all parts of the country, which contain matters of interest to the profession. They will be thankfully received, and acknowledged under "Communications received."]

Correspondence.

FOREIGN.

PARIS, 1868.

Surgical Statistics.

EDITORS MEDICAL AND SURGICAL REPORTER:

The statistics afforded by the catalogue of the Washington Surgical Museum have already been put into service, and compared with those collected in the French and English armies at the Crimea, and during the French campaigns in Italy. The critical reviewer in the *Archives de Medecine* has examined these statistics with a view of ascertaining the relative successes of conservative and operative surgery. The immense scale upon which the experiments in both have been tried, would render the conclusions quite authoritative, were it not that, in many cases, the bad hygienic conditions in which the patients were placed, introduced irregular complications into the calculation of chances. On this account, as conceded by the French critic, the American reports are the most valuable, since their troops were infinitely better cared for, their hospitals better organized, and the whole medical service better conducted, than had ever been the case, either in the Crimea or in Italy.

In comparing the results of operations and attempts at conservation, several sources of error need to be guarded against. For instance, it is generally conceded at present, that primitive amputation is much more favorable than secondary, and this last is only practised when the efforts to save the limb have failed. Consequently, the cases of mortality observed in secondary amputations should justly be placed to the account of the conservative system. Again, it is extremely important to separate amputations made a few hours after the wound, and those made on the third day. The differences in the chances of success are immense, and always brightened when, as of course is generally the case, inflammatory phenomena have occurred before the operation. Four classes should be made, including respectively, amputations practised in the first twenty-four hours; after the first day, but before the development of inflammatory phenomena; after inflammation has set in; finally, ulterior amputations.

In the American war, expectation in the treatment of wounds of the foot was followed by a mortality of 30.12 in 100; while after partial amputations, the mortality rose to 62.90 in a 100. Secondary amputation produced 3.21 per

cent. higher mortality than primitive. The English statistic is favorable, though in a less degree than the French, to the preservation of the foot. The Americans are quoted as having lost only 9.24 per cent. in consequence of partial amputations, and 13.43 after tibio-tarsal amputations—a result immensely superior to that of the allied armies—but it is not stated how many men were saved by the conservative system.

It is concluded, therefore, that amputation of the foot should only be advocated as an extreme measure, and in cases where the parts are disorganized.

In wounds of the tibio-tarsal articulation, expectation (in the Crimea) gave a mortality of 49.91 per cent., but this is probably much too favorable, inasmuch as a large number of the men who recovered were not pensioned, and therefore escaped without ankylosis, which is almost equivalent to saying that the wound had never penetrated into the interior of the articulation. The English surgeon operated in six cases out of eight, when the ankle-joint was wounded, and of the two men treated by expectation, one died.

The American statistic only bears upon resection, of which 18 cases were reported, including 12 recoveries and 6 deaths. The reviewer thinks the Americans are unreasonable to call this result discouraging.

Amputations after wounds of the leg are even more fatal than in the case of the foot, the mortality being 70 per cent. Expectation was followed by 26.61 deaths in a 100. These results do not include fractures of the fibula alone, where the mortality is only 18 per cent. Where the nature of the wound necessitates amputation of the thigh, the chances have been still more against the patient; in the Crimea, the mortality was 90 per cent.

But in extremely grave fractures, that is, when the fragments were numerous, the loss of bony substance considerable, and burrows extended to the articulation, the chances were so great that the surgeon would be forced to finally have recourse to secondary amputation, that the primitive operation was found more successful than attempts at preservation.

The English were less successful in such attempts, even in fractures that were not extremely grave. The mortality was 36.27 per cent., and the mortality after amputations, though higher, was inferior to that observed by the French surgeons, being 50 per cent. The Americans again testify in favor of resection; the minimum mortality by amputation is 26 per cent., while after

resections of the tibia it was 18.64, of the fibula 20, and of both bones 25.

After penetrating wounds of the knee, the mortality was enormous at the Crimea, and somewhat higher after expectation than when the limb was at once sacrificed—91.36 per cent. in the first case, and 89.63 in the second. The English hastened to operate as soon as possible, finding that secondary operations of the thigh after wounds of the knee, was very fatal. In America also, ten per cent. more patients were lost by expectation than operation, although the mortality in both cases was less than at the Crimea—73.23 per cent. for operative, and 83.76 per cent. for conservative practice.

In cases of wounds of the thigh, the mortality after amputations has been frightful among the French, whether at the Crimea or at Paris, and amounts to 20 per cent. more than that resulting from expectation. This latter gives 68.39 per cent. of deaths, the former 91 per cent. But in the English statistics, the mortality after expectation is mounted to 82 per cent., while that after primitive amputation was only 62.14. Similar results in America, where amputation loses 50.81 per cent. of the patients, expectation 63.42.

M. A.

DOMESTIC.

Female Physicians.

EDITORS MED. AND SURG. REPORTER:

In the current number of your journal I notice the statement that an American lady, Miss MARY C. PUTNAM, is engaged in the study of medicine in Paris, and has been admitted to her first medical examination. It may not be generally known that this lady is a graduate of the Woman's Medical College in this city, and is an intelligent, educated and accomplished physician.

She received her degree of Doctor of Medicine at the annual commencement in the spring of 1864, when she presented as her thesis an elaborate essay written in the Latin language, on "Speculations concerning the function of the Spleen." She is residing abroad for the purpose of further perfecting her medical education, and especially to reap the benefit of that hospital and clinical tuition, which is practically denied to women in her own country.

That Miss PUTNAM, while a student of medicine in this city, did not have hospital and clinical facilities is no fault of hers, or of her alma mater. The obstacles with which prejudice and self-interest then strewed the path of women

students of medicine were numerous, and almost insuperable. Many have been removed; and though some still remain, may we not hope that the time is not far distant when no medical student, male or female, need set out for Paris, or go elsewhere abroad, for the purpose of adding to or completing their education. W.

Philadelphia, Nov. 22, 1868.

Maternal Impressions?

EDITORS MEDICAL AND SURGICAL REPORTER:

The numerous little articles in your journal of late on this subject, have reminded me of an incident that occurred not long ago in a neighboring county. Dr. M—, a former pupil of mine, was called to attend a German woman in her confinement. It seems that during her pregnancy she had been startled in some way by a colored man. From that time both her husband and herself had entertained great fears, lest, as a result of the fright, the offspring would in some way be "marked." Nothing, however, was said to the doctor on the subject until after the delivery.

It so happened that the case was one of "face presentation." After rather a severe labor, she was delivered of a healthy looking infant; but the face and head presented strongly the appearance familiar to all obstetric physicians, when such abnormal presentations occur. The mother asked at once if the child was "all right." The doctor replied, "yes,"—but at that instant a howl of despair arose from the father, who had caught sight of the congested and distorted face of the child. That it was a "nigger" was manifest! And the uproar that arose in that household baffled for a long time all the doctor's ingenuity and slender acquirements in the German tongue to overcome. The mother would not have the child in bed with her, and the father would never have such a monster grow up in his family! Finally, with the help of a neighboring woman, the doctor had the poor babe suitably cared for; and to prevent its being made way with after the doctor left, the woman was instructed to keep the child in her possession, night and day, till its improved appearance satisfied the distressed parents that it was not of "the colored persuasion."

Now, with all Christendom, and possibly all heathendom, on the lookout for "marked children," is it wonderful that astounding coincidences should sometimes occur?

HENRY M. LILLY, M.D.

Fond du Lac, Wis., Nov. 6, 1868.

Antidotal Action of Opium and Belladonna.

EDITORS MED. AND SURG. REPORTER:

In your judicious remarks, on druggists' mistakes, called forth by the late terrible occurrence in Philadelphia, of poisoning by atropia, you say that the antagonism and antidotal effects upon each other, of morphia and atropia, "are so well known" that the omission to administer morphia in this unfortunate case is inexplicable and inexcusable. A writer, following you in the next issue of the REPORTER, upon the subject of "Belladonna and Opium Poisoning," takes the same view of the antidotal properties of each, as though the question of their antidotal action was definitely settled.

I would ask, not in a spirit of caviling, but for information, if the facts so far as elicited by the experiments now being performed by eminent physicians, do really determine beyond a doubt, that one of these powerful drugs neutralizes the effects of the other, in the manner and degree of an antidote.

Dr. GEO. HARLEY, in his Gulestonian Lectures (*Brit. Med. Journal*, April 11, 1868), draws the conclusion, as the result of his experiments, extended during the past year, upon man and the lower animals, that opium and belladonna, administered either combined or separately, intensify each other's action.

He also states, as the result of his experiments upon man, this highly important fact (familiar, perhaps, to your many readers,) that by the administration of small doses of atropia previous to giving opium or its alkaloids, we may obviate the unpleasant effects, which in many cases where the sedative, hypnotic effect of opium is so very desirable, yet from an idiosyncrasy on the part of the patient as to the effect of the drug, we are unable to prescribe it. But he found no antidotal effect, such as generally has been ascribed to the action of these drugs upon each other. On the contrary, while the primary unpleasant effect of morphia was obviated, yet its hypnotic effect was much greater when combined or preceded by atropia, and the peculiar action upon the sympathetic system of the latter was much increased by morphia. Each seeming to predispose the system to the effect of the other, intensifying and prolonging their action.

Reasoning upon theoretical grounds alone, it may seem plausible that these drugs should be antidotal, from the fact that one has a stimulating, and the other a sedative action, upon the sympathetic nerves which control the arterial system. Yet, if Dr. HARLEY's experiments can

be relied upon, and his conclusions accepted as correct, and we have no reason to doubt them, it seems that there is a point in the ultimate effects of these drugs (probably in their action upon the heart), where they act in concert to depress vital action.

If then, Dr. HARLEY's opinions are correct, are we not adding fuel to the fire when administering one of these drugs as antidote to the other? I have made the above remarks simply for the purpose of eliciting information for guidance in practice, having personally no experimental knowledge of the subject. Opinions so diametrically opposed, surely, for the benefit of humanity and the guidance of the physician, should be definitely settled beyond the peradventure of a doubt; and as your widely circulated journal ever nobly strives to diffuse correct information, I hope in time this question will be settled through the medium of its columns.

W. H. STERLING, M. D.

Burlington, N. J., Dec. 4, 1868.

[Dr. HARLEY is by no means the first or the only person who denies the antagonism of these two drugs as toxic agents. BOUCHARDAT, BROWN-SÉQUARD, and others, years since said "that death by opium takes place from the same dose whether we employ belladonna or not." To counterbalance this proposition, which is defended chiefly by the results of experiments on the lower animals, numerous cases are on record where poisonous doses of opium were successfully combatted by the use of belladonna alone. So long as this is the case, and so long as we know that no analogy can be properly drawn between the effects of poisons on brutes and on man, we must still hold the opinion that in desperate cases of intoxication by one of these drugs the physician who neglects to use the other neglects his duty.—Eds.]

News and Miscellany.

Death by a Spider.

SAMUEL CADY, of Webster, Iowa, was bitten on the arm, about a month ago by a large black spider, but was not conscious of injury until about two weeks afterward, when the pain became excruciating, and death occurred on the 11th. It is said that his illness resembled hydrophobia in its worst stages, and the persons attending him were in constant danger of being bitten unless they approached him with great caution. In his delirium he imagined himself to be an immense spider, and was constantly raving

about his web, for such he imagined his bed to be. So powerful was his madness that it required the utmost exertions of several strong men to hold him during his paroxysms.

Liability of Druggists.

An action was brought in the City Court of Brooklyn recently, by THOMAS WEBSTER, administrator of MATILDA WEBSTER deceased, against ROBERT KENNEDY, for damages resulting from the death of plaintiff's wife, as alleged, by malpractice on the part of the defendant. Mr. KENNEDY is a druggist doing business in the vicinity of Third Avenue and Seventeenth street, Gowanus. Some time in October, 1867, Mrs. WEBSTER, who had been complaining of dumb ague for some time, and deprived of her rest in consequence, sent her daughter to KENNEDY's store for "something to make her sleep." Mr. KENNEDY sent her back with two grains of morphine in one paper, and remarked, that if that did not have the desired effect, nothing would. The daughter administered the dose, and the result was that the mother died next day. Medical testimony was called to prove that an ordinary dose of morphine was from one-sixth to one-third of a grain for an adult, and that those who had become used to it could take larger doses, even as much as two grains. Mrs. WEBSTER had not been accustomed to take large doses. Damages were laid at five thousand dollars, all the law allows, and as the defendant did not appear, either personally or by counsel, an inquest was taken before a jury, who found a verdict for the full amount claimed in favor of plaintiff. The defendant in this case has heretofore been twice tried before the King's County Court of Sessions, and the jury in both cases disagreed.

Whole-Meal Bread.

It is well known to chemists and physiologists that the very finely bolted and white flour which is so much sought after is far less nutritious than what is termed middlings, or unbolted flour. The most nutritious ingredients of the grain—the wheat phosphates and gluten—are removed to obtain the desired whiteness. Dr. HENRY MCCORMIC, an eminent physician of Belfast, Ireland, in some interesting remarks on the subject, says: "What I want to see everywhere is the preparation of whole-meal bread—bread including the bran-phosphates, so all-essential to good bread and the nurture of our flesh and bones. But I do not think that the working classes, to whom it is so important, will ever take to it fully until set the example by the more instructed classes."

Consumption Infectious.

Dr. HENRY I. BOWDITCH, of Boston, says in the *Atlantic Monthly* for January, a literary magazine we have often taken occasion to commend:

"It was our fortune to attend a man slowly dying of consumption, who, while hopelessly ill, was devotedly cared for by his wife, who at the time felt herself, and seemed to be, in perfect health.

Years after her husband's death, and when she was bravely battling against the disease, which commenced its insidious attacks immediately subsequent to his death, she related to me the following fact, but only on my definite inquiries as to how intimate her relations had been with him during his illness. It seems that often, in wintry nights, that faithful woman would arise from the side of her husband, who was lying with his dress drenched with the chilling sweat of increasing disease, and would persuade him to take her warm clothing and to lie down in the dry warm place she had just left, while, simply throwing a blanket over it, she would take the spot that had been previously occupied by him! Upon our expressing a horror at the thought of the danger she had run, and which apparently had told with so much power upon her, she quietly remarked that she knew at the time the danger she was incurring. She had no thought of danger to herself, and only of her husband's comfort! "But," added she, "I then got what I have never recovered from." A certain vitality seemed to go out of her; and though her nature contended for many years against the encroachments of the disease, she finally died, always believing that she had taken consumption from her husband, but with a certain martyr-like joy that such had really been the fact.

We have now in our mind other and analogous cases, as, for example, of husbands having their first cough when "inhaling the breath of their sick wives," while ministering to their necessities. We have known daughters and sisters, who, full of apparent health and strength, when consumption has seized a mother or sister, have continued to sleep with the invalid, and to breathe the same closed-up atmosphere at night, and to watch all day without perhaps a moment of healthful out-of-door exercise. And we have been distressed to find not a few of such healthy young persons gradually beginning to suffer with indigestion, debility, and finally cough, and all the symptoms of consumption. In some in-

stances, in fact, the attendant has died before the life of the original patient has ended. These facts are very significant; and although we are well aware that, in some of them, other elements of disease may have had their fatal influences, still the cases have been full of suggestions as to the necessities of greater precautions than we, in this country, have usually taken in this matter."

Action for Malpractice.

We have to record another of those actions for malpractice, which, prompted by the malignity of enemies, not unfrequently await the best qualified and most conscientious surgeons.

George Chase, of Bangor, Me., broke both bones of his right leg, on Sept. 15th, 1866. The fracture was oblique. Dr. CALVIN SEAVEY, assisted by his son, Dr. HENRY H. SEAVEY, reduced the bones, and attended upon him till the leg was considered sufficiently strong to render further professional aid unnecessary.

After the lapse of a year this action was brought. The writ charged the Doctor with want of skill, attention, and care in reducing the fracture, and treating the limb generally. Determined to have an exhaustive investigation of the facts, and the application of the highest professional skill to test his treatment, from his first view of the fractured limb till he ceased to visit the patient, he called in the testimony of Dr. TEWKSBURY, of Portland, Dr. FULLER, of Bath, and Dr. MONROE, of Belfast, surgeons of great learning and experience, with that of Dr. BRADBURY, of Oldtown.

Dr. SEAVEY, with his son, Dr. HENRY H. SEAVEY, with other persons acquainted with material facts, testified as to the precise method of reducing the broken bones, and securing them in their natural positions, and as to his treatment of the limb throughout.

Drs. FULLER, MONROE, BRADBURY, and TEWKSBURY, testified that the whole process, from first to last, was very skilfully and carefully performed, and that *they could detect no fault in it.* They also unanimously testified to the distinguished reputation of Dr. SEAVEY as a surgeon, ranking him "among the first in the State."

When the testimony was concluded, the counsel for the plaintiff, convinced of the groundless nature of the prosecution, stopped the proceedings, and a non-suit was entered on the record.

It was a felonious scheme to despoil Dr. SEAVEY of his property, and rob him of his reputation, which is dearer to him than wealth. It deserves severe censure and punishment. It was

apparent that the plaintiff, an infirm, weak, and ignorant man, was used as the mere tool of somebody having not the least interest in the suit, or only as a pauper, having his settlement in, and supported by the town of Eddington.

Personal's from Europe.

The once distinguished Dr. HOUNAU, Surgeon-Major of the army under the First NAPOLEON, died recently at Pau.—Another victim of death is Dr. GRIESINGER, Professor in the Berlin University, celebrated for his admirable works on clinical medicine.—Dr. CARL ENGELMAN, the oldest physician in Kreuznach, died in October, from pneumonia brought on by exposure and overwork in his practice.—Dr. LUBELSKI, of Warsaw, is one of a number of Polish physicians decorated with orders by the Czar of Russia for devoted services during the cholera epidemics of 1866 and 1867. Dr. L. is known in medical literature by his researches on the treatment of chorea by aspersions of ether in vapor.—The venerable PURKYNE, Professor of Physiology at Prague, lately celebrated his eighty-first birthday. The literary organ of the city took this occasion to mildly hint that it was about time for him to retire and rest. But the next day the Professor was out in a note disclaiming any intention to rest yet—much to the disappointment of his friends.

The Evans Sanitary Collection.

Our distinguished fellow-countryman, Dr. THOS. W. EVANS, of Paris, has written the following letter to *Galvani*, which is of general interest.

"I take great pleasure in informing all those persons who are interested in the work of ameliorating the condition of the sick and wounded of armies, that I have reopened to public inspection the private Sanitary Collection which I had the honor of exhibiting in the Champ-de-Mars during the summer of 1867, in connection with the 'Société des Secours aux Blessés.' The ambulance and general hospital matériel has been entirely reorganised, as well as considerably increased, and I have added to the bibliographical section a large number of valuable books, reports, monographs, diagrams, etc., connected either directly or indirectly with sanitary subjects. The collection has been placed in a building specially constructed for the purpose, at the corner of the Avenue de l'Impératrice and the Avenue Malakoff, and will be opened to the public free every Thursday afternoon between the hours of two and five o'clock."

Cure for Obesity on Chemical Principles.

Within the past few years, many individuals whom nature or their habits has endowed with an uncomfortable burden of *polysarcia*, or *pinguitude*, have carefully endeavored to follow the rules for diet and habits prescribed by BANTING, in his work on corpulency, and a great portion of these, after some months of sacrifice in the pleasures of gastronomy, have abandoned the task with the verdict "humbug." But if the report of Dr. C. D. GIBB be true, those afflicted with "*embonpoint excessif*" may easily arrive at the desired degree of attenuation by taking for a considerable time very small doses of bromide of ammonium, which, that medical gentleman has assured us, will absorb fat and diminish the weight of the human body with greater certainty than any other remedy known. An article was published in the *London Lancet* several years ago, written by Dr. GIBB, extolling this new preparation for the above named purpose.

— The *Boston Journal of Chemistry* says:—"For variety of topics discussed, and for industry displayed in collecting facts and cases, what foreign journal compares with the *Philadelphia Medical and Surgical Reporter*? This journal is filled with medical and surgical news, and hardly anything occurring in the circle of sciences, to which it is devoted, escapes its notice."

— Dr. ELLERSLIE WALLACE of this city while visiting a patient on Christmas day, left his carriage standing on Ninth street above Catherine. During his absence a thief entered his carriage and took possession of a box of valuable surgical instruments.

Army and Navy News.

Navy News.

List of changes, etc., in the Medical Department of the Navy, during the week ending December 26th, 1868.

Surgeon Ed. Harlan, detached from the U. S. Naval Academy on the 5th January, 1869.

Surgeon Edward Shippen, ordered to the Naval Academy, January 5, 1869.

Surgeon Daniel Egbert, ordered to duty as member of Naval Retiring Board, Philadelphia.

Surgeon George Maulsby, ordered to duty in connection with the Naval Retiring Board, Philadelphia.

Surgeon H. M. Wells, detached from the U. S. S. Shamokin and waiting orders.

Surgeon Jno. S. Kitchen, ordered to duty on board the Receiving Ship, Ohio, Boston, Mass.

Surgeon A. A. Hoehling, ordered as Member of Naval Retiring Board, Philadelphia, Pa.

